

**CLAIMS**

This listing of claims will replace all prior versions, and listings of claims in the application:

Claims 1-3 (canceled)

Claim 4 (previously presented): An isolated monoclonal antibody or fragment thereof that specifically binds to SEQ ID NO: 3, wherein said antibody is raised against a fragment of SEQ ID NO: 3 comprising at least 5 amino acids of a peptide selected from amino acid residues 1-67 of SEQ ID NO: 3, amino acid residues 78-169 of SEQ ID NO: 3, amino acid residues 178-205 of SEQ ID NO: 3, amino acid residues 1-22 of SEQ ID NO: 3, amino acid residues 117-142 of SEQ ID NO: 3, amino acid residues 21-57 of SEQ ID NO: 3, amino acid residues 76-113 of SEQ ID NO: 3, and amino acid residues 120-149 of SEQ ID NO: 3.

Claim 5 (canceled)

Claim 6 (previously presented): The antibody or fragment thereof of claim 4, wherein the monoclonal antibody is recombinantly produced.

Claim 7 (previously presented): The antibody or fragment thereof of claim 4, which is conjugated to an agent.

Claim 8 (canceled)

Claim 9 (currently amended): The antibody or fragment thereof of claim 4, wherein the fragment is an Fab, ~~F(ab')<sub>2</sub>~~, F(ab')<sub>2</sub>, Fv or sFv fragment.

Claim 10 (previously presented): The antibody or fragment thereof of claim 4, which is a human antibody, a humanized antibody or a chimeric antibody.

Claim 11 (canceled)

Claim 12 (previously presented): A hybridoma that produces an antibody of claim 4.

Claim 13 (previously presented): The antibody or fragment thereof of claim 6, wherein the monoclonal antibody is a single chain monoclonal antibody that immunospecifically binds to a protein comprising SEQ ID NO: 3.

Claim 14 (canceled)

Claim 15 (withdrawn): A method of delivering an agent to a cell that expresses 121P1F1 (SEQ ID NO: 3), said method comprising:

providing the agent conjugated to an antibody or fragment thereof of claim 4; and,  
exposing the cell to the antibody-agent or fragment-agent conjugate.

Claims 16-47 (canceled)

Claim 48 (withdrawn): A method of inhibiting growth of cancer cells that express 121P1F1, comprising:

administering to said cells an antibody or fragment thereof which specifically bind to a 121P1F1 protein (SEQ ID NO: 3).

Claim 49 (withdrawn): The method of claim 48 wherein the antibody or fragment thereof is a single chain monoclonal antibody that immunospecifically binds to the 121P1F1 protein.

Claims 50-53 (canceled)

Claim 54 (withdrawn): The method of claim 48 of inhibiting growth of cancer cells that express 121P1F1 and a particular HLA molecule, the method comprising steps of:

administering to said cells human T cells, wherein said T cells specifically recognize an 121P1F1 peptide sequence in the context of the particular HLA molecule.

Claims 55-77 (canceled)

Claim 78 (previously presented): The antibody or fragment thereof of claim 7, wherein the agent is a diagnostic agent or a cytotoxic agent.

Claim 79 (previously presented): The antibody or fragment thereof of claim 78, wherein the cytotoxic agent is selected from the group consisting of radioactive isotopes, chemotherapeutic agents and toxins.

Claim 80 (previously presented): The antibody or fragment thereof of claim 79, wherein the radioactive isotope is selected from the group consisting of  $^{211}\text{At}$ ,  $^{131}\text{I}$ ,  $^{125}\text{I}$ ,  $^{90}\text{Y}$ ,  $^{186}\text{Re}$ ,  $^{188}\text{Re}$ ,  $^{153}\text{Sm}$ ,  $^{212}\text{Bi}$ ,  $^{32}\text{P}$  and radioactive isotopes of Lu.

Claim 81 (previously presented): The antibody or fragment thereof of claim 79, wherein the chemotherapeutic agent is selected from the group consisting of taxol, actinomycin, mitomycin, etoposide, tenoposide, vincristine, vinblastine, colchicine, gelonin, and calicheamicin.

Claim 82 (previously presented): The antibody or fragment thereof of claim 79, wherein the toxin is selected from the group consisting of diphtheria toxin, enomycin, phenomycin, Pseudomonas exotoxin (PE) A, PE40, abrin, abrin A chain, mitogellin, modeccin A chain, and alpha-sarcin.